

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
	)	IB Docket No. 07-101
Amendment of Parts 2 and 25 of the	)	
Commission's Rules to Allocate Spectrum	)	
And Adopt Service Rules and Procedures	)	
To Govern the Use of Vehicle-Mounted	)	
Earth Stations in Certain Frequency Bands	)	
Allocated to the Fixed-Satellite Service	)	

**JOINT COMMENTS OF  
THE ASSOCIATION OF PUBLIC TELEVISION STATIONS  
AND THE PUBLIC BROADCASTING SERVICE**

The Association of Public Television Stations ("APTS")<sup>1</sup> and the Public Broadcasting Service ("PBS")<sup>2</sup>, (collectively referred to as "Public Television") hereby submit these comments in response to the Commission's *Notice of Proposed Rulemaking* ("NPRM") in the above-captioned proceeding.<sup>3</sup>

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<sup>1</sup> APTS is a non-profit organization whose membership comprises the licensees of nearly all of the nation's CPB-qualified noncommercial educational television stations. The APTS mission is to support the continued growth and development of a strong and financially sound noncommercial television service for the American public.

<sup>2</sup> PBS is a non-profit media enterprise owned and operated by the nation's public television stations. A trusted community resource, PBS uses the power of noncommercial television, the Internet and other media to enrich the lives of all Americans through quality programs and education services that inform inspire and delight. Available to 99 percent of American homes with televisions and to an increasing number of digital multimedia households, PBS serves over 75 million people each week.

<sup>3</sup> *In re Amendment of Parts 2 and 25 of the Commission's Rules to Allocate Spectrum and Adopt Service Rules and Procedures to Govern the Use of Vehicle-*

APTS and PBS have serious concerns about the proposed rules and procedures designed to expand the current limited military use of the Ku- and Extended Ku-Band for mobile Vehicle Mounted Earth Station Satellite Services (VMES) that have the capability to receive and transmit in the 11.7 -12.2 GHz and 14.0-14.5 GHz bands, respectively.

PBS currently uses these bands to receive and distribute noncommercial educational programming to PBS members. The 11.7 -12.2 GHz band is used for downlinking satellite-delivered noncommercial educational programming from PBS members, and the 14.0-14.5 GHz band is used to uplink such programming for distribution to these members nationwide. The use of these bands without interference is therefore critical to ensure the continued stability and health of noncommercial educational television in the United States.

Although General Dynamics asserts that VMES will operate on a non-interference basis, APTS and PBS are concerned that the small VMES antennas will not maintain the proposed 0.2-degree accuracy requirement. Though 0.2 degrees is the standard currently governing Earth Stations on Vessels (ESVs), the threat of interference from VMES is far greater. Unlike sea and air vessels, the land vehicles for which VMES are designed are, in the regular course, moving quickly on rough terrain, taking sharp turns, and hitting obstructions in the

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*Mounted Earth Stations in Certain Frequency Bands Allocated to the Fixed-Satellite Service*, Notice of Proposed Rulemaking, IB Docket No. 07-101 (rel. May 15, 2007).

terrain. The expansion of use of VMES for non-military applications multiplies the instances of interference with incumbent Ku-band users like PBS.

This expanded use is even more troublesome because in many cases, the source of interference will not be identifiable. General Dynamics' likely use of spectrum spreading techniques will result in the interference resembling an increase in transponder noise level. The source of such interference is nearly impossible to locate using existing standard interference location systems employed by satellite operators.

For these reasons, APTS and PBS request that the Commission allocate spectrum to VMES services in the Ka-band rather than the Ku-band. However, if the Commission decides to permit the expansion of Ku-band use by VMES, our organizations urge that the Commission institute several requirements to ensure that interference with incumbent Ku-band users is minimized and can be quickly resolved:

- The Commission should require that it be proven, through exhaustive testing using prototypes, that each antenna to be used for VMES service is able to meet the 0.2-degree accuracy requirement in actual use.
- The Commission should require that a hub master station monitor the transmissions of VMES terminals and be held responsible for their operation.
- The Commission should mandate that any VMES users install an automatic transmitter identification system (ATIS), such as is currently the requirement for analog television transmitter identification.
- In a manner similar to the requirement for ESVs, for each VMES transmitter, a record of the transmitter location, transmission frequency, channel bandwidth, and satellite used shall be time-annotated and maintained for a period of not less than one year, and the VMES network

operator must be prepared to make this information available, for a given location and frequency, upon request within one hour of a suspected interference event.

APTS and PBS recognize that the location of some government VMES cannot be disclosed to the general public. However, the existence of a transmitter of “unspecified origin” at a specific location using a certain frequency should be disclosed if the transmitter uses the commercial FSS band. If, after satellite operator review, the “unspecified origin” transmitter is believed to be the source of the problem, the appropriate government control point can be notified to interface with the interfering unit. Alternatively, if this procedure is not acceptable to the government user, that user would have the option of using government SATCOM frequency bands (e.g., 7 GHz) instead of the commercial FSS band.

### CONCLUSION

APTS and PBS hope to work with the Commission to develop rules concerning the operation of VMES that do not interfere with the ability of public television stations to deliver educational programming to the American public.

Respectfully submitted,

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